

## CLAIMS

1. A temperature-controlled system for supporting a workpiece comprising:
  - a top surface assembly on which the workpiece can be mounted;
  - a thermal plate in thermal communication with the top surface assembly, the
  - 5 thermal plate being formed of a porous thermally conductive material;
  - a fluid inlet for allowing a temperature-controlled fluid to enter the thermal plate and propagate through the porous material of the thermal plate;
  - a layer of channels at a surface of the thermal plate for facilitating the flow
  - 10 of the fluid through the thermal plate; and
  - a temperature controller for controlling temperature of the fluid propagating through the thermal plate to control the temperature of the workpiece.
2. The system of claim 1, wherein the workpiece is a semiconductor wafer.
3. The system of claim 1, wherein the workpiece is a packaged integrated circuit.
4. The system of claim 1, wherein the fluid is air.
- 15 5. The system of claim 1, wherein the thermal platform is contained within a test system for testing the workpiece.
6. The system of claim 5, wherein at least a portion of the temperature controller is externally connected to the test system, the temperature controller comprising a fluid source for providing the fluid to the test system.
- 20 7. The system of claim 6, wherein the temperature controller comprises a heater inside the test system for heating the fluid.

8. The system of claim 1, wherein the test system is a wafer prober.
9. The system of claim 1, wherein the test system is a packaged device handler.
10. The system of claim 1, wherein the porous thermally conductive material comprises sintered metal.
- 5 11. The system of claim 1, wherein the porous thermally conductive material comprises reticulated foam.
12. The system of claim 1, wherein the porous thermally conductive material comprises copper.
- 10 13. The system of claim 1, wherein the porous thermally conductive material comprises carbon foam.
14. The system of claim 1, wherein the porous thermally conductive material comprises graphite foam.
15. The system of claim 1, wherein the channels are formed in a surface of the thermal plate.
- 15 16. The system of claim 1, wherein the channels are formed in a convector plate adjacent to the thermal plate.
17. An apparatus for testing an integrated circuit comprising:  
a test system in which the integrated circuit is supported;  
a temperature control coupled to the test system, the temperature control

comprising:

a fluid source for providing a fluid to the test system in thermal communication with the integrated circuit;

a controller for controlling the temperature of the fluid to control the temperature of the integrated circuit; and

a fluid heater for heating the fluid, the fluid heater being located within the test system.

18. The apparatus of claim 17, wherein the fluid is air.

19. The apparatus of claim 17, wherein the test system is a wafer prober.

20. The apparatus of claim 17, wherein the test system is a packaged integrated circuit device handler.

21. The apparatus of claim 17, wherein the integrated circuit is part of an integrated circuit wafer.

22. The apparatus of claim 17, wherein the integrated circuit is packaged.